

April 3, 2001

Mary L. Cottrell, Secretary

Department of Telecommunications and Energy

One South Station, 2nd floor

Boston, Massachusetts 02110

Re: Advanced Metering, D.T.E. 01-28

Dear Secretary Cottrell:

On March 1, 2001, the Department of Telecommunications and Energy ("Department") issued a procedural schedule requesting comments in *Investigation by the Department of Telecommunications and Energy on its own Motion into the Installation of Advanced Metering Equipment by Electric Distribution Companies at the Facilities and Homes of their Distribution Customers*, D.T.E. 01-28 ("Advanced Metering NOI"). By this letter, the Attorney General ("AG"), the Division of Energy Resources ("DOER"), The Energy Consortium ("TEC"), Associated Industries of Massachusetts ("AIM") and the Massachusetts Health and Educational Facilities Authority (HEFA)(together, "the Customer Group") provide joint comments in response to the Department's request. The Customer Group supports the concepts agreed to at the technical session and comments specifically on issues raised by the individual filings of MECo, Western Massachusetts Electric Company ("WMECo"), Fitchburg Gas and Electric Light Company ("FG&E") and NSTAR Electric ("NSTAR")⁽¹⁾(together, "the Companies"). The Customer Group also recommends the Department continue the Advanced Metering NOI so that all

options presented by the NOI can be offered by distribution companies to customers as soon as is feasible.

COMMENTS

I. BACKGROUND

On February 8, 2001, the Department opened an investigation to develop generic terms and conditions for the provision of advanced metering services by electric distribution companies. *Advanced Metering*, D.T.E. 01-28. The Advanced Metering NOI defined advanced metering equipment as "those meters capable of recording customers' electricity usage at fifteen minute intervals." *Id.*, p. 2. In the NOI, the Department restated its position that the installation of equipment that facilitates price-responsive demand shifts is essential to the development of a successful competitive generation market.⁽²⁾ *Id.* The NOI included "Proposed Terms and Conditions for the Provision of Advanced Metering Services by Distribution Companies" ("Terms and Conditions") to serve as the basis for discussion at a technical session on March 1, 2001.⁽³⁾

The Department proposed three options for customers seeking advanced metering services. Under Option 1, a distribution company would provide advanced metering services to a customer by purchasing and installing equipment that would provide fifteen minute interval data. The company would own, service and maintain the equipment and take daily meter readings and report such information to the Independent System Operator - New England ("ISO-NE"). The associated fee would be based on the cost of providing the service and could be paid either monthly or in a single payment.

Under Option 2, the customer would purchase and own the metering equipment that would provide fifteen minute interval data. The equipment would be installed, serviced and maintained by the distribution company. The company would also take daily meter readings and report the loads to the ISO-NE. Because the customer would own the equipment, there was no fee attached to this option.

Under Option 3, the advanced metering services would be offered to customers through company installation of a pulse interface device attached to the existing meter. The pulse interface device would record customer usage at fifteen minute intervals. The customer would then purchase and install recording and transmitting devices as desired. The company would own, maintain and service the meter and the pulse interface device, and read the customer's meter daily and report to the ISO-NE. The fee for this option would be based on the cost of providing the service and could be paid either monthly or in a single payment.

Under all three options, the company would determine the equipment that could be installed, read the meters daily and "use the metered data in reporting the customers' hourly loads to the Independent System Operator--New England." *Advanced Metering*, D.T.E. 01-28, Att. 1.

II. TECHNICAL SESSION

On March 1, 2001, the Department held a technical session to discuss issues related to the Terms and Conditions. The Terms and Conditions were modeled on tariffs filed by MECo as part of a settlement proposal made by MECo, DOER, AIM, and TEC. *Settlement Offer*, D.T.E. 00-59, July 5, 2000 ("MECo Settlement").⁽⁴⁾ The MECo Settlement provided for the installation of enhanced metering services on an interim basis acknowledging that the Department, pursuant to Section 312 of the Electric Restructuring Act of 1997, was in the process of investigating competitive metering and data services in D.T.E. 00-41. *Id.* The Department denied the proposed MECo Settlement without findings, citing its investigation in another docket. *Letter Order*, D.T.E. 00-59 (September 15, 2000), p.3.

The technical session concluded with an understanding that the Companies would make a joint filing of model terms and conditions that would be subject to comment. In the technical session, the Companies agreed to base their model terms and conditions on the MECo Settlement tariff. Despite this understanding, each Company filed its own tariff. Because the Companies instead filed individual model terms and conditions, the AG, DOER, AIM and TEC filed motions requesting an extension of time to file comments. On March 23, 2001, the Hearing Officer granted the request.⁽⁵⁾ Because the Companies filed tariffs that are significantly different from the proposed model tariff, it is necessary to discuss the issues raised by the filings.

III. SUMMARY OF FILINGS

A. Introduction

The Companies filed individual rate tariffs. The Companies proposed tariffs that implement the Department's Options 1 and 3. None of the Companies proposed a tariff to implement the Department's Option 2.⁽⁶⁾ In addition, although the tariffs capture the spirit of Options 1 and 3, each contained terms that differed from the Department's proposed options. The differences are discussed below.

1. MECo

MECo filed two proposed service tariffs: Enhanced Metering Service and Interval Data Service. *Proposed Advanced Metering Tariffs*, D.T.E. 01-28 (March 12, 2001).⁽⁷⁾ MECo's Enhanced Metering Service contained two service options: Service Option 1, under which the Company would install, own and maintain equipment at the customer's facility and take periodic load readings over telephone lines, or Service Option 2, under which a customer could connect equipment to the Company's meter to access meter data through a pulse interface device provided by the Company.⁽⁸⁾ Customers who selected either option could request additional services such as power outage reporting, peak consumption notification, read on appointment, read on request and advanced meter information read on demand, offered by the Company subject to its ability to render such service.

MECo's Interval Data Service would be available to customers who receive Enhanced Metering Service and to customers who receive metered retail delivery service and have installed a Company-owned interval data recorder. The service would be available to a customer or its authorized agent on a per-request or subscription basis.

Under the terms of the earlier Settlement, MECo would bear the cost of any shortfall between the fees collected and the cost of the services. *Settlement*, p. 2. The Settlement also stated that MECo did not have the technology available to provide power outage notification within three cycles, but anticipated that this capacity would be available shortly.

2. NSTAR

The NSTAR filing proposed tariffs for Cambridge Electric Light Company ("Cambridge").⁽⁹⁾ The proposed tariffs did not include rates, because according to NSTAR, the specific rates are not final. NSTAR submitted the proposed tariffs for purposes of language review, and stated that it would file final tariffs with rates and supporting cost documentation after the review period. *NSTAR Electric Model Tariffs*, March 12, 2001.

The NSTAR proposal contained two tariffs modeled on the Department's Option 1 and Option 3: Enhanced Metering Services and Interval Data Services.⁽¹⁰⁾ Enhanced metering service includes both advanced interval metering and pulse interface device attachments. *Id.*, p.1. NSTAR would install, own, and maintain the metering equipment that would allow periodic reading and reporting of the customer's load over telephone lines. The customer, or its representative, could receive data either electronically or through the meter's optical port. NSTAR specified that the customer is responsible for the necessary telephone connections. NSTAR proposed separate fees for the interval data service for non-residential general service tariff customers based on whether a customer has interval metering.

NSTAR included a menu of additional services that could be available, such as power outage reporting, peak consumption notification, read on request, read on request and power quality data (advanced meter information). The Company's proposed tariff also includes "Special Provisions." Provision A stated that under Option 1, the company would consider requests for special metering. Provision B stated that for both Option 1

and modem equipped recorders under Option 2, the Company would read the meters daily and report the results to ISO-NE for load settlement. If the customer's communication capability is lost, the Company would substitute estimated load data. Provision C stated that the load values derived from Company or customer owned equipment "will be settled

based on the actual quantities recorded on the company's billing meters for the time period in question." *Id.*, p. 3. The tariff required a twenty-four month minimum term for enhanced metering services.

NSTAR's proposed Interval Data Service tariff provided two fee options: per request (twelve months of data) fee and annual subscription. The tariff provided "web-based" access to "5 or 15 minute usage data that is ASCII text file compatible with spreadsheet programs."

3. WMECo

WMECo proposed two separate tariffs: Extended Metering Options and Interval Load Data Services. *WMECo Proposed Tariffs*, D.T.E. 01-28, (March 12, 2001). Although these tariffs proposed the same services as MECo and NSTAR, the details differ. Although WMECo's proposal included specific fees, the Company did not provide any supporting material regarding the derivation of the proposed fees. WMECo's tariffs state that the proposed services would be available to customers and licensed suppliers, but do not explain whether the services would be available for other customer- authorized entities, such as marketers or agents.

The Company's Extended Metering Option 1 provided two reporting options: "Phone Automatic Meter Reading" and "Late Night Telemetry." The late night option is more expensive. WMECo's Option 2, "Load Pulse Outputs for Customer or Energy Suppliers Equipment" seems equivalent to MECo and NSTAR service, but WMECo did not state specifically whether it would maintain the equipment it owns and installs, nor did it state how long it would store the data. Both MECo and NSTAR provided for thirty-five day storage. WMECo includes an Option 3, which is similar to NSTAR's Special Provision A, but the NSTAR proposal provided that the Company would respond to written requests within thirty days and address the availability, cost, technical issues and provide a list of approved equipment.

The rate schedule proposed by WMECo (which differentiates between residential and C&I customers) included both one-time charges and monthly fees. WMECo's fee schedule included discount options, such as combining the features of Option 1 with Option 2 (AMR with pulse output, late night with pulse output). While the WMECo proposal included an "Additional Services" provision, the service is limited to "Read on Appointment" and "Read on Request." WMECo did not address peak consumption, power outage, or power quality reporting. WMECo required a minimum one-year contract term and thirty days notice prior to the installation of new equipment at the service location.

WMECo's proposed tariff for "Interval Load Data Services" will to provide kWh data only in fifteen minute intervals. NSTAR stated that load data files would contain five or fifteen minute interval usage data. MECo did not specify either the intervals or the availability of data kWh, KW or other data.

WMECo specified data file format, but the specifications are different from those established by NSTA and MECo. It is not clear whether this represents an incompatibility in data or whether both formats are usable by all customers. Finally, the WMECo tariff provided for special requests with fees to be established by mutual agreement.

4. FG&E

FG&E filed "model tariff pages" which are very similar in language and structure to both the NSTAR and MECo proposals. *FG&E Model Tariffs*, D.T.E. 01-28 (March 16, 2001). FG&E points out that their proposal did not include any of the "Additional Services" proposed by NSTAR and MECo, as FG&E has yet to determine their ability to provide these services. Furthermore, FG&E states that since the Company has not completed the analysis necessary to determine charges, the proposed tariff does not include any fees. *FG&E Letter*, March 16, 2001.

FG&E's "Optional Enhanced Metering Service" tariff contains the same Option 1 and Option 2 as NSTAR and as with the NSTAR tariff, FG&E specifies that under Option 1 it will store load data on the meter for thirty-five days and will read the meters daily. FG&E's provisions mirror the NSTAR tariff provisions, including the 24-month minimum term of service and "Special Provisions." However, FG&E includes an additional special provision stating that "[t]he Company may not be able to provide daily meter reading and information due to operational difficulties with the equipment for which the customer has operational responsibility." FG&E, Special Provision D.

IV. DISCUSSION

A. Proposed Tariffs

At the technical session, there was an understanding that the Companies would include data with their filings to support the proposed rates. DOER, AIM and TEC have stated that they accept the price structure presented in the MECo Settlement as reasonable since it was based on the cost data also explicit in the MECo Settlement. To the extent that the other Companies' proposed fees do not diverge significantly from the MECo tariffs, the Customer Group recommends that the Department allow the Companies to put the tariffs in place as soon as possible, subject to review and investigation by the Department. The Attorney General and HEFA agree that the Department should approve the proposed rate tariffs, subject to refund, provided that the Department opens an immediate investigation into all proposed Company fees for these new monopoly service offerings to determine whether they are cost-based and just and reasonable.

B. Minimum Term of Service

At the technical session, the Companies agreed to submit tariffs that emulated the MECo Settlement tariffs. The MECo tariffs do not require a minimum term of service, whereas the NSTAR and FG&E tariffs require customers charged monthly to agree to a minimum service term of twenty-four months. The proposed WMECo minimum term of service is one year. The Customer Group urges tariff consistency regarding a minimum term of service and recommends that the Department adopt the MECo approach which does not require a minimum term of service. *See Attachment A, Principles for Enhanced Metering and Related Services General Terms and Conditions.*

C. Meter List

The discussion at the technical session included consideration of the need to create a statewide list of available meter options. The Customer Group recommends that the Department establish a statewide list of permissible meters, subject to periodic review. A statewide list would address consistency issues raised by the Companies' filings.

The NSTAR filing stated that Cambridge would "consider requests for special metering." From the language it is not clear whether Cambridge would consider only customer requests for meters on the list of approved meters or whether the Company would consider requests for any meter. Furthermore, it is not clear to which list the Company would refer. Without a statewide meter list, deploying the same meter statewide may be difficult for customers. It is also not clear what recourse a customer would have if Cambridge denies a request for a meter that is not on the Company-approved list. WMECo Option 3, the Company's Special Request Metering Option, is not subject to an approval process. A statewide meter list would address these concerns.

D. Bill Meter

The NSTAR and FG&E proposals include provisions that suggest load values will be based on the Company's billing meter, as differentiated from the enhanced meter.

The Customer Group opposes any separate usage of billing data in the context of providing advanced metering and seeks clarification that the billing meter and the enhanced meter are the same meter.

E. Data Services

NSTAR's Interval Data Service tariff limits the type of usage data that a customer can receive and the means by which the Company will provide it, stating that it will be available in electronic form only. MECo provides that the data can be provided through an optical port and/or electronically. The WMECo tariff does not establish clearly who has access to the data, such as a customer's representative, or how the data will be accessible. The Customer Group recommends that tariffs should include language stating that the customer or an authorized representative may have access to all available data through an optical port and/or electronically. *See Attachment A, Principles for Enhanced Metering and Related Services General Terms and Conditions.*

F. Other Metering Issues

The Companies tout enhanced metering as a way to increase the private and public benefits of using advanced technology in metering. To ensure that customers receive the service sought at a rate that reflects the service provided, the Customer Group believes that enhanced metering equipment should not be limited in its ability to monitor and record, real time or at interval choice, power parameters, use, use rates, and quality. Furthermore, the Customer Group maintains that enhanced metering should not be limited to either fifteen minute interval data reads or to KWH data only. Specific data that an enhanced meter could provide should include, but not be limited to, usage (kWh), demand (KW, Kvar) and quality (low/high voltage, spikes, frequency, harmonics, power interruptions, etc.)--depending on meter design. Finally, real-time meters are essential for customers to receive the full benefit of enhanced metering. Without real-time meters which allow a customer to have access to a host of information, enhanced metering will not fully benefit customers.

H. Fees and Service

The Customer Group recommends that the fee structure proposed by the Companies should be clear and consistent. Moreover, the tariffs that the Department approves should pertain only to those services that a company can provide as of the time of program implementation. New tariffs regarding additional services should be filed and reviewed when the additional services are available to customers.

V. RECOMMENDATIONS

A. Department Option 2

The Customer Group recommends that, while the Companies should offer Department Options 1 and 3 as soon as the details are worked out, the participants should continue to discuss Option 2, the only option offering a customer the ability to purchase and own the metering equipment. The Customer Group believes that it is important to pursue the customer ownership option. One practical reason to allow customer

ownership of metering equipment is that it will avoid unnecessary income tax burdens. If Companies purchase meters and the full cost is passed through to the customer, then the customer will pay not only for the meter and its installation, but also may be burdened with taxes associated with contribution in aid of construction (CIAC).⁽¹¹⁾

It is important to underscore that Option 2 does not require unbounded customer discretion in selecting the metering equipment. The Department's customer ownership option expressly states that "The Company will select for the customer the metering equipment that may be used under this option" (*Advanced Metering*, D.T.E. 01-28, Att. 1, p. 5). This puts to rest any argument that Option 2 presents reliability problems by offering customer choice.

B. Outstanding Issues

Given the number of unresolved issues surrounding advanced meters, the Customer Group recommends that the Department continue the current investigation. As part of the further investigation, the Customer Group suggests that the Department also develop a process to discuss ongoing issues that may arise. The Customer group recommends that the Department immediately establish a working group to explore unresolved issues. Within ninety days, the working group should recommend to the Department a time line to achieve the objectives recommended in this letter and identify issues for further review. After the Department has ruled on the working group's recommendations, a subgroup of the working group could be established to oversee a periodic review process of the list of approved advanced metering technology. Such a process is necessary to assure that the list of approved technology continues to encompass tested, new and innovative products.

The Customer Group also recommends that in addition to the customer choice options outlined in the NOI, the Department should also investigate the incremental costs and benefits of universal deployment. The Customer Group suggests that the Department investigate the option of deploying the advanced technology on a going-forward basis for new customers, new construction and/or meter replacements, with current customers still having access to such advances.

If the Department determines that it is in the best interests of customers to establish a customer choice framework with isolated costs provided by regulated monopolies, then the details must be laid out in a more prescriptive manner than has been done thus far. The Customer Group urges the Department to establish a process and time line to address in detail issues such as the desired characteristics of chosen technology, open architecture standards, data accessibility, the cost framework, and the relationship of the capabilities these technologies bring relative to the possible inflexibility in the current rate structure, and to establish a periodic review process to ensure that Companies keep pace with advances in technology.

C. Terms and Conditions

Given the diversity of the proposed tariffs, and as an important aid to customers' understanding of the scope of available services, the Customer Group recommends that the Department require all Companies to amend their general terms and conditions to incorporate a universal description of enhanced metering services, definitions of the terms associated with these services, and customer rights and responsibilities. Attachment

A contains principles to guide the terms and conditions that the Department should require all distribution companies to include in their tariffs as general terms and conditions.

VI. CONCLUSION

The Customer Group recommends that the Department approve company tariffs designed to implement Department Options 1 and 3, provided that the tariffs address the concerns of the Customer Group and provided that the tariffs parallel the terms and customer access rights provided in the MECo Settlement Offer. The Department should establish a list of approved enhanced meters available in all service territories.

The Customer Group further recommends that either by means of another technical session, a working group or both, the Department move expeditiously to resolve

the issues discussed above and other issues the group recommends that the Department address.

Respectfully submitted,

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Enclosure

cc: Andrew Kaplan, Hearing Officer (five copies)

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Service List (by electronic mail and U.S. mail)

1. During the pendency of the comment period, the Customer Group had discussions with NSTAR regarding concerns about issues raised by the Company's proposed tariff. The Customer Group understands that NSTAR may submit a revised proposed tariff to the Department intended to address many of the issues discussed by the Customer Group in these comments, *supra*.

2. The Department stated further that, "only with the installation of such equipment would customers have the necessary information and the proper incentives to adjust their consumption patterns based on price signals." Terms and Condition, D.P.U./D.T.E. 97-65, p. 59 (1997)

3. Following the technical session, the Department solicited comments from the participants on the Terms and Conditions.

4. The Settlement did not propose an option that encompassed the Department's NOI Option 2.

5. The procedural schedule established at the technical session provided that the Companies' proposed model terms and conditions would be filed on March 12, 2001, with comments due on March 19, 2001. On March 15, 2001, the AG filed a motion seeking a two week extension of the comment period. On March 16, 2001, DOER, AIM and TEC jointly filed a similar request. On March 23, 2001, the Hearing Officer granted the request and ruled that Initial Comments were due by April 3, 2001 and Reply Comments were due by April 10, 2001. *Hearing Officer Memorandum* (via electronic message), D.T.E. 01-28, March 23, 2001.

6. In addition, as in the MECo Settlement tariffs, NSTAR and WMECo filed proposed tariffs for notification and data publishing services. FG&E limited its filing only to those issues contained in the Department's Options 1 and 3.

7. MECo's proposed tariffs are identical to tariffs contained in the MECo Settlement, except that the Settlement proposed additional optional services and contained cost information to support the proposed rates. MECo's proposed tariffs include fees. Those same fees were included in the MECo Settlement in D.T.E. 00-59 as part of the information included in the Company's filing to support its calculations.

8. The services would be available to customers who receive retail or delivery service or enhanced meter service from MECo. The customer, or its representative would purchase, own and maintain a modem-equipped recording device. MECo would store load information for

thirty-five days and MECo would read the meters daily. The customer would have the choice of initial lump sum payment or a monthly fee.

9. NSTAR states that the proposed tariff will serve as the model tariff for the other two NSTAR companies.

10. In the discussion herein, reference to NSTAR Options 1 and 2 is equivalent to the Department's Options 1 and 3.

11. For example, the State of New York Department of Public Service noted that, "Under the Tax Reform Act of 1986, contributions in aid of construction became taxable after

December 31, 1986. The law treats payments to the utility for meters and meter upgrades as federal income. The federal tax as applied to utility property would substantially increase the price of a meter by up to 50 percent..." *In the Matter of Competitive Opportunities Regarding Electric Service*, OPINION NO. 97-13, (August 1, 1997) p.8, footnote 1.